

Appln. No. 10/807,580

Amendment in Reply to the Final Office action dated July 22, 2005

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph numbered [0005] with the following paragraph:

[0005] Pursuant to the present invention, an electric motor has an output shaft with generally circular peripherally indented discs of different diameters mounted thereon. Torque is applied to the output shaft by engagement of the discs with push rods projecting from electromagnetic actuators positioned in angular spaced relation to each other about the output shaft on rail supports anchored to a rheological brake unit through which the output shaft extends. Under control applied through magnetic fields to rheological fluid within the brake unit, braking effect is removed from the disc plates during a free-wheeling operational phase. Electrical energy is also applied to the actuators for mechanically imparting torque to the output shaft through the push-rods engaging one of the peripheral indented disc plates selected under stroke control by displacement of the actuators in planar alignment with each other along a guide path at an angle to the rotational axis of the output shaft for selectively varied conversion of drive force into the torque applied to the output shaft.

Please replace paragraph numbered [0012] with the following paragraph:

[0012] As shown in FIG. 2, the torque drive imparting assembly 24 includes four actuator units 28 in planar alignment with each other and positioned in 90° angular relation to each other about the shaft 12. Each of such actuator units 28 includes a pair of cylindrical actuator devices 30 held in close parallel spaced relation to each other within a support 32. Each of the actuator supports 32 as shown in FIGS. 1 and 2 is adjustably positioned within an elongated rail 34 along guide paths established therein. The actuator supports 32 are shown positioned along the guide

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paths at outer ends 36 opposite inner ends 38 of the rails 34 anchored to the unit 18. Each rail 34 accordingly extends in angular relation to the axis 40 of the shaft 12 as shown in FIG. 1, radially spaced therefrom by an amount which increases from the anchored rail ends 38 to the opposite rail ends 36 at which the actuator devices 30 are positioned in alignment with a large diameter force transfer wave plate 42 splined to the shaft end section 26 and having an indented periphery 44. Projecting from each of the cylindrical actuator devices 30 is a driving push rod 46, for engagement with the indented periphery 44 of the waveplates 42 or 48 so as to impart a different torque forces to the shaft 12 through the waveplates 42 and 48 dependent on the selective positioning along the guide paths established by the rails 34 at an angle to the axis 40 of the shaft 12.